

Sub D7 --32. A method for remote control of a distributed television broadcasting system, said method comprising:

- (a) separately generating and sending respectively corresponding error-corrected digital overlay display data to each of plural remote television broadcast sites via a bi-directional digital signal communication link;
- (b) generating and sending common television program broadcast signals to each of said plural remote television broadcast sites for re-broadcast therefrom;
- (c) generating and sending overlay control signals to each of said plural remote television broadcast sites via non-displayed portions of said television program broadcast signals; and
- (d) using said overlay control signals received at said plural remote television broadcast sites to locally generate and re-broadcast television signals therefrom incorporating displayed images corresponding to previously received digital overlay display data that was separately generated therefor in step (a).

33. A method as in claim 32 wherein said digital overlay display data comprises alphanumeric characters and/or image data.

34. A method as in claim 32 wherein different respectively corresponding digital overlay display data is generated and sent to at least some of said broadcast sites.

Sub D27 35. Apparatus for remote control of a distributed television broadcasting system, said apparatus comprising:

(a) means for separately generating and sending respectively corresponding error-corrected digital overlay display data to each of plural remote television broadcast sites via a bi-directional digital signal communication link;

(b) means for generating and sending common television program broadcast signals to each of said plural remote television broadcast sites for re-broadcast therefrom;

C1
cont. (c) means for generating and sending overlay control signals to each of said plural remote television broadcast sites via non-displayed portions of said television program broadcast signals; and

(d) means for using said overlay control signals received at said plural remote television broadcast sites to locally generate and re-broadcast television signals therefrom incorporating displayed images corresponding to previously received digital overlay display data that was separately generated therefor by said means for separately generating and sending digital overlay data.

36. Apparatus as in claim 35 wherein said digital overlay display data comprises alphanumeric characters and/or image data.

37. Apparatus as in claim 35 wherein different respectively corresponding digital overlay display data is generated and sent to at least some of said broadcast sites.

- Sub D 37
38. A TV broadcast method for a system to be operated from a TV continuity studio within the control of a broadcast flow unit, said method comprising:
- (a) generating alphanumeric characters and/or image data separately for each of plural remote sites at a central site and transmitting said alphanumeric characters and/or image data therefrom to said plural remote sites via a digital data communication link;
 - (b) error correcting said alphanumeric characters and/or image data received at the said remote sites via said link;
 - (c) generating and transmitting command codes within non-displayed portions of broadcast television signals to remotely control each of said remote sites from the said central site;
 - (d) converting said alphanumeric characters and/or image data to local vision materials with a graphic generator at each of said remote sites;
 - (e) at each remote site, overlaying said local vision material synchronously onto a continuing general television signal broadcast from the central site without cutting off the general broadcast television program being re-broadcast by the remote site; and
 - (f) detecting whether the said local vision materials have been incorporated in the local re-broadcast via transmission of digital information sent back to the central site.
- C1 Out.

39. A TV broadcast method as in claim 38 further including:

(g) producing still or moving alphanumeric characters and/or image data at the central site continuity studio; and

(h) simultaneously transmitting the alphanumeric characters and/or image data to a selected number of said remote sites through a digital data communication link.

40. A TV broadcast method as in claim 38 further including:

(g) controlling and verifying whether the data present at the control site and sent to remote stations have been received correctly by using a modem.

41. A TV broadcast method as in claim 38 further including:

*cl
out.*
(g) generating and transmitting command codes within the broadcasting process, either automatically or semi-automatically under an operator's control, to remote sites by using the vertical blanking intervals and/or hex numbered pages of the teletext transmission.

42. A TV broadcast method as in claim 38 wherein a decoder at each remote site extracts, decodes, and transfers commands coming through teletext to a remote site computer.

43. A television broadcast method as in claim 38 wherein said command codes from the central managing and controlling site act to control:

(a) functions,

(b) switches between general or differentiated transmissions to a corresponding broadcast area from a storage medium for still or moving character and/or image data to a display producing area in a remote site,

(c) reports of a control process to a central site continuity studio; and

(d) starts, stops, differentiation of one or more process.

44. A TV broadcast method as in claim 38 wherein:

(g) said alphanumeric character and/or image data sent from the central site are converted at the remote site to local vision materials as subtitles, graphics, footer, frame, or animation using a graphical generator, decoder, inserter, hard disk and CD-ROM, recorder/reader.

45. A TV broadcast method as in claim 38 wherein hardware at each remote site controls:

(a) actual overlay of the said local vision materials;

(b) signal levels from the satellite receiver; and

(c) output from a cable head end and/or TV transmitter to be within acceptable pre-defined limits.

46. A TV broadcast method as in claim 38 further including:

(g) sending querying data about the operations at the remote site, error reports to the central continuity studio and, when desired, remote site operational information from the continuity studio through modem/telephone network and/or satellite data link.

Sub D47 47. A TV broadcast method for a system to be operated from a TV continuity studio within the control of a broadcast flow unit, said method comprising:

(a) generating alphanumeric characters and/or image data separately for each of plural remote sites at a central site and transmitting said alphanumeric characters and/or image data therefrom to said plural remote sites via a digital data communication link;

@ Cont. (b) error correcting said alphanumeric characters and/or image data received at the said remote sites via said link;

(c) generating and transmitting command codes within non-displayed portions of broadcast television signals to remotely control each of said remote sites from the said central site;

(d) converting said alphanumeric characters and/or image data to local vision materials with a graphic generator at each of said remote sites;

(e) at each remote site, overlaying said local vision material synchronously onto a continuing general television signal broadcast from the central site without cutting off the general broadcast television program being re-broadcast by the remote site; and

(f) detecting whether the said local vision materials have been incorporated in the local re-broadcast via transmission of digital information sent back to the central site.

48. A TV broadcast method as in claim 38 further including:

(g) producing still or moving alphanumeric characters and/or image data at the central site continuity studio; and

(h) simultaneously transmitting the alphanumeric characters and/or image data to a selected number of said remote sites through a digital data communication link.

49. A TV broadcast method as in claim 38 further including:

(g) controlling and verifying whether the data present at the control site and sent to remote stations have been received correctly by using a modem.

50. A TV broadcast method as in claim 38 wherein a decoder at each remote site extracts, decodes, and transfers commands coming through teletext to a remote site computer.

51. A TV broadcast method as in claim 38 further including:

(g) generating and transmitting command codes within the broadcasting process, either automatically or semi-automatically under an operator's control, to remote sites by using the vertical blanking intervals and/or hex numbered pages of the teletext ~~transmission~~.

52. A television broadcast method as in claim 38 wherein said command codes from the central managing and controlling site act to control:

- (a) functions,
- (b) switches between general or differentiated transmissions to a corresponding broadcast area from a storage medium for still or moving character and/or image data to a display producing area in a remote site,
- (c) reports of a control process to a central site continuity studio; and
- (d) starts, stops, differentiation of one or more process.

53. A TV broadcast method as in claim 38 wherein:

- (g) said alphanumeric character and/or image data sent from the central site are converted at the remote site to local vision materials as subtitles, graphics, footer, frame, or animation using a graphical generator, decoder, inserter, hard disk and CD-ROM, recorder/reader.

54. A TV broadcast method as in claim 38 wherein hardware at each remote site controls:

- (a) actual overlay of the said local vision materials;
- (b) signal levels from the satellite receiver; and
- (c) output from a cable head end and/or TV transmitter to be within acceptable ~~pre-defined limits~~

55. A TV broadcast method as in claim 38 further including:

CI
cancel.
(g) sending querying data about the operations at the remote site; error reports to the control continuity studio and, when desired, remote site operational information from the continuity studio through modem/telephone network and/or satellite data link.
